

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for depositing a coating on one face of several containers made of a thermoplastic using a low-pressure plasma by excitation of a precursor gas by UHF electromagnetic waves in only one circular vacuum chamber containing said containers, said UHF electromagnetic waves being supplied through a window of a side wall of said only one circular vacuum chamber, wherein a frequency of the UHF electromagnetic waves is selected and said only one circular vacuum chamber is sized such that a coupling mode is generated which generates a number of electromagnetic fields inside the only one circular vacuum chamber, and wherein a same number of containers are disposable inside said only one circular vacuum chamber, said-containers being disposable coaxially and respectively within one of said number of electromagnetic fields, whereby it is possible for several respective containers to be simultaneously treated in the only one circular vacuum chamber.

2. (currently amended): The method as claimed in claim 1, wherein a TM 120 coupling mode is established, which generates two central fields inside the only one circular vacuum chamber, and wherein two containers are disposed inside said only one circular vacuum chamber, said two containers being coaxial respectively to said two electromagnetic fields, whereby two containers can be simultaneously treated in said only one circular vacuum chamber.

3-7. (canceled).

8. (new): The method according to claim 1, wherein the UHF electromagnetic waves have a frequency $f = 2.455$ GHz, and wherein the diameter of said chamber is about 273 mm to establish a TM₁₂₀ coupling mode that generates two central fields in the cavity, whereby it is possible for two containers to be simultaneously treated inside said chamber.

9. (new): A method for depositing a coating on a face of several containers comprising:
providing a vacuum chamber for containing a plurality of containers;
placing a plurality of containers within the vacuum chamber;
supplying a precursor gas into each container;
exciting the precursor gas to form a low-pressure plasma by supplying UHF electromagnetic waves into the vacuum chamber;

sizing the vacuum chamber and selecting a frequency of the UHF electromagnetic waves such that the size of the vacuum chamber in combination with the frequency of the UHF electromagnetic waves results in the generation of a coupling mode having a plurality of electromagnetic fields inside the vacuum chamber; and

wherein each container is disposed respectively and coaxially within one of the plurality of electromagnetic fields generated by the coupling mode, such that multiple containers are simultaneously treated.

10. (new): The method according to claim 9, wherein the UHF electromagnetic waves are supplied from a single source to generate the plurality of electromagnetic fields.

11. (new): The method according to claim 9, wherein said UHF electromagnetic waves are supplied through a window in a side wall of said chamber.

12. (new): The method according to claim 9, wherein the vacuum chamber is circular.

13. (new): The method according to claim 9, wherein the UHF electromagnetic waves have a frequency $f = 2.455$ GHz; and

wherein the diameter of the vacuum chamber is 273 mm to establish a TM₁₂₀ coupling mode that generates two central fields in the vacuum chamber;

whereby it is possible for two containers to be simultaneously treated inside said chamber.